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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,086	06/27/2003	Zhicheng Li	44662B (1062-014C1)	7520

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EXAMINER	
FULLER, ERIC B	

ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/609,086	LI ET AL.	
	Examiner	Art Unit	
	Eric B. Fuller	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-25 and 27-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-25 and 27-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant argues that Locke fails to teach the relative amounts of secondary and primary amines. This is not found convincing. The numerous examples show various amount of secondary amines (Jeffamine D-2000), most of which read on the applicant's range. Using a balance of primary amine additionally reads on the applicant's range. Regardless of this argument, it is well established that "Concentration limitations are obvious absent a showing of criticality." *Akzo v. E.I. du Pont de Nemours* 1 USPQ 2d 1704 (Fed. Cir. 1987). Applicant has responded to this argument by merely alleging that the "applicants disclose at least one advantage of their relative amounts of primary and secondary amine". However, the examiner finds no disclosure of an advantage the concentration imparts. The applicant has not pointed out these alleged advantages. The only statement the examiner can find is that the amount of amine may be any suitable amount... (page 3, last paragraph) and cited numerous applicable ranges. This fails in showing criticality of the concentration range claimed.

Applicant argues that the molecular weight range is not taught. This argument is not found convincing. Jeffamine D-2000 has a molecular weight of 2000, which is higher than 190.

Applicant argues that the monomer level being less than 1% is not taught. This is not found convincing. Locke explicitly teaches a polyisocyanate and does not teach

monomers in the formulation (column 9, lines 50-65). This reads on 0% monomers, which is less than 1%.

Applicant argues that the stability requirements. This is not found convincing. It has been shown in previous Office Actions that the stability would either be inherent, since the formulations are essentially the same, or achievable by use of stability inducing fillers, as explicitly taught by Locke.

Because the applicant's arguments have not been found convincing, the rejections of the previous Office Action have been maintained accordingly and are duplicated below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 9, 10, 21, 22, 24, 25, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945).

Locke teaches a two-component sprayed composition that is applied to automobile parts (column 3, lines 1-10). One component comprises aliphatic isocyanates, including isophorone diisocyante (column 9, lines 30-50). The other component comprises amines (column 4, lines 23-67). The amines may be a mixture of

aliphatic primary and secondary amines (column 4, lines 23-30). The components are kept separate until mixed and also is thixotropic (column 8, lines 3-20). The composition amounts are within the applicant's claimed range (column 10, lines 28-50; column 4, lines 40-60). The reference is silent to the performance properties of the resulting coating. However, it is taught to include fillers in order to achieve strength and hardness characteristics (column 7, lines 43-67). It would have been obvious and within the skill of one practicing in the art, through routine experimentation, to optimize the performance properties of the resulting coating by determining the relative amounts of the components in the mixture, including fillers, and exacting amine ratios, absence evidence of unexpected results. By doing so, the life of the product is extended.

Locke teaches the limitations above, but is silent to using aspartic acid ester. However, Wade teaches that by using aspartic acid ester in the amine component, the resulting coating is hard, elastic, abrasion resistant, weather resistant, and has increased flexibility. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use aspartic acid ester in the composition taught by Locke. By doing so, one would reap the benefits of the coating being hard, elastic, abrasion resistant, weather resistant, and having increased flexibility.

Claims 2, 11, 12 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019), as applied to claim 1 above, and further in view of Burton (US 5,925,466).

Locke teaches the limitations shown above, but is silent to the substrate being an automotive bed liner. However, Burton teaches that truck bed liners require characteristics that the composition of Locke provides (column 3, lines 1-17). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the composition taught by Locke in the bed liner taught by Burton. By doing so, one would have a reasonable expectation of success as Locke teaches to apply the composition to automobile parts requiring flexibility, hardness, and elasticity and Burton teaches that bed liners require such characteristics.

Claims 3, 13-15, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466), as applied to claim 2 above, and further in view of Wade et al. (US 5,580,945).

Locke, in view of Burton, teaches the limitations to claim 2, but is silent to using aspartic acid ester. However, Wade teaches that by using aspartic acid ester in the amine component, the resulting coating is hard, elastic, abrasion resistant, weather resistant, and has increased flexibility. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use aspartic acid ester in the composition taught by Locke. By doing so, one would reap the benefits of the coating being hard, elastic, abrasion resistant, weather resistant, and having increased flexibility.

As to claims 15 and 20, Locke explicitly teaches these limitations in column 4, lines 55-67, and column 7, line 60.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 1 above, and further in view of Meader, Jr. et al. (US 4,025,683).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the metering containers of the spray apparatus. Locke does teach to use a conventional two-component spray system (column 12, lines 1-13). Meader teaches a two-component spray system that uses metering, mixing, and spraying in order to deliver controlled amounts of the components (column 9, lines 10-24). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use metering in the spraying apparatus of Locke. By doing so, one would reap the benefits of controlling the amount of components delivered.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 1 above, and further in view of Uhrhan et al. (US 4,145,512).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the use of light stabilizers. However, Uhrhan teaches that the addition of light stabilizers for protection against discoloration and degradation. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use light stabilizers in the composition of Locke and Wade. By doing so, one would reap the benefits of protecting the composition from discoloration and degradation.

Claims 8, 23, and, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 4 above, and further in view of Thomaides et al. (US 5,626,840).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the use of static control agents. However, Thomaides teaches that it is desirable to control static through the use of stannic salts in order to achieve quality spray coatings (column 14, lines 55-65). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use static control agents in the composition of Locke and Wade. By doing so, one would reap the benefits of achieving quality spray coatings.

Claims 16, 18, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466) and Wade et al. (US 5,580,945), as applied to claims 3 and 14 above, and further in view of Thomaides et al. (US 5,626,840).

Locke, in view of Burton and Wade, teaches the limitations to claim 3 and 14, but is silent to the use of static control agents. However, Thomaides teaches that it is desirable to control static through the use of stannic salts in order to achieve quality spray coatings (column 14, lines 55-65). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use static control

agents in the composition of Locke. By doing so, one would reap the benefits of achieving quality spray coatings.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466) and Wade et al. (US 5,580,945) and Thomaides et al. (US 5,626,840), as applied to claim 18 above, and further in view of Meader, Jr. et al. (US 4,025,683).

Locke, in view of Burton, Wade, and Thomaides, teaches the limitations to claim 18, but is silent to the metering containers of the spray apparatus. Locke does teach a conventional two-component spray system (column 12, lines 1-13). Meader teaches a two-component spray system that uses metering, mixing, and spraying in order to deliver controlled amounts of the components (column 9, lines 10-24). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use metering in the spraying apparatus of Locke. By doing so, one would reap the benefits of controlling the amount of components delivered.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks, can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EBF

TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER